

Research Department  
Federal Reserve  
Bank of  
San Francisco

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## Say "Kondratieff"

In this winter of our discontent, media pundits have examined the entrails of a hecatomb of economists, but still remain undecided about the economic outlook. Some claim that the recession is already over, while others claim that the worst is still ahead of us. In view of this disagreement, it may be useful to examine a number of indicators to determine what lies ahead in 1982.

### Long waves

The world of economic theory has led to one useful indicator which Alfred Malabre mentioned recently in a *Wall Street Journal* column, but which has been evident to veteran analysts throughout the past generation. In a word, the recession reaches bottom just at the time when market-letter writers all begin to say "Kondratieff". The reference is to a theory originally developed in the 1920s by the Russian economist Nikolai Dimitriyevich Kondratieff. According to this view, economic history moves in half-century-long waves, and each wave is generated by the rise and fall of some major industry. This suggests that during the downswing of a Kondratieff long wave, the normal ups and downs of a business cycle are exaggerated—with business recoveries being short and mild, and recessions being long and severe.

Economists generally put little stock in the Kondratieff thesis. For a recent cover story, *Forbes* magazine obtained quotes from two leading MIT economists, with Nobel Laureate Paul Samuelson describing the thesis as "nonsense", and Charles Kindleberger describing it as "astrology". Nonetheless, the theory has a following among economists with engineering degrees, who see most things in terms of sine waves—and especially among market-letter writers of the gloom-and-doom school, who revive the theory during every recession as an explanation of why the outlook looks so dismal. But whatever the value of the thesis, it has provided more sanguine economists with a

useful rule of thumb: the economy begins to turn up whenever most financial writers describe the outlook in terms of a Kondratieff decline. Incidentally, Joseph Stalin did exactly what most policymakers would like to do with their economists—he shipped Kondratieff off to Siberia.

### Inventory watch

A better fix on the outlook may be obtained by watching those measures which take into account the automatic nature of business-cycle forces. In particular, sales and employment should begin to improve as business firms run-off their present excess inventories, and are forced to reorder new materials and equipment. Inventory data suggest, however, that this process is just beginning, and that we may be facing a situation similar to the sharp inventory cutback which climaxed the 1974-75 recession (see chart).

During 1981, businesses added \$18 billion of inventories—\$9 billion of that total in the volatile durable-goods sector—yet the volume of durable-goods sales declined 7 percent between the fourth quarter of 1980 and fourth quarter of 1981. Even with no further decline in sales, substantial inventory liquidation would be needed to restore stocks to proper levels. And if sales weaken further, the swing from accumulation in 1981 to liquidation during 1982 will be a substantial near-term drag on total output of the economy. Still, most economists expect the liquidation process to end by about mid-year, leading to a new accumulation of inventories—and therefore higher orders, sales and employment—in the second half.

### Automatic stabilizers

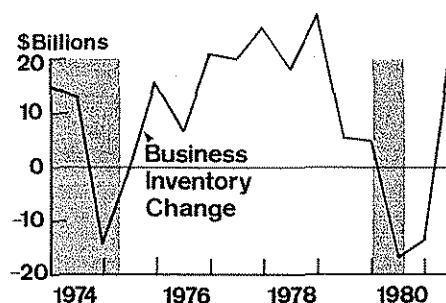
In another almost automatic process, the downward spiral should be neutralized by the fiscal reforms of the past generation—the automatic reductions in income-tax receipts, and increases in unemployment compensation and social-security benefits, that go along with any downturn in production and employment. A generation ago, in his role as business-cycle analyst, Arthur Burns emphasized the automatic stabilizing effects of

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Federal-deficit financing on the economy. Little did he realize, in his later role as central banker, the amount of deficit financing that would be likely in 1982 and later years (see chart).

Most economists believe that massive tax cuts and increases in defense spending—the key elements in the current fiscal outlook—should turn the economy around after mid-year. The tax cuts alone are expected to pump about \$37 billion into the economy (annual rate), most of it in the second half of the year, after the first of two 10-percent cuts in income-tax rates takes hold on July 1. Increases in defense spending may add \$25 billion in annual spending. And beginning July 1, the economy will also get a boost of perhaps \$14 billion in additional social-security payments as a result of cost-of-living adjustments. Partly offsetting these injections of cash will be further cuts in government spending at Federal, state and local levels, as well as the January increase in social-security taxes. Yet on balance, the overall Federal stimulus should be substantial.

The budget figures indicate also that the inventory decline may be less than generally expected. The late-1981 increase in inventories, especially in primary metals and nonelectrical machinery, may reflect buying by business firms in anticipation of a coming boost in defense spending. This stock accumulation, being planned rather than unplanned, suggests that further inventory cutbacks (and their depressing effect on the economy) may be relatively modest.

### Monetary role

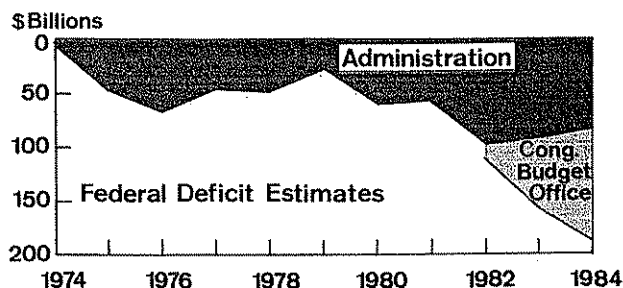
In past business recoveries, the fiscal stimulus was supported by an accommodative monetary policy. In the present cycle, however, the size of the deficit to be financed could unbalance a monetary policy dedicated to a slow non-inflationary recovery. Federal Reserve Chairman Volcker made this point in recent Congressional testimony, when he said that consolidating the progress already attained on the inflation front will require continued restraint on monetary growth.

Actually, given the present level of M-1—currency plus transaction (checkable) deposits—and given last year's relatively slow money growth, the Fed could live with money growth in the upper half of its 2½-to-5½ percent growth range for 1982. This would be consistent with an economic recovery later this year, but not with the type of sharp rebound experienced in past cycles.

Market fears of a clash between a relatively restrictive monetary policy and an excessively easy fiscal policy have helped account for an unprecedented rise in real (inflation-adjusted) interest rates, which has badly undermined economic activity in recent months. With the Federal Reserve's increasingly successful campaign against inflation, most market observers last year expected interest rates to decline substantially. This proved not to be the case, however, and by last summer, a number of businesses found that they could neither absorb high real-interest costs nor pass them along to their customers. The results were cancellations of merchandise orders, massive inventory build-ups, business failures, and rising unemployment. The recent increase in the business prime-loan rate to 16½ or 17 percent—which meant a real-interest cost of about 8 percent annually—testified to the continuation of a problem which could further undermine the economy. High real-interest costs, therefore, could swamp the boost to demand expected from this year's tax cuts.

### Structural problems

Long-term structural problems also could undermine the recovery process in many industries, beginning with the crucial automotive industry. New-car sales, at 9 million units in 1981, fell far below the 11-million-plus pace in the boom years of the late 1970s. For domestic producers, 1980-81 sales were the worst in the past two decades, reflecting a sharp upsurge in product costs. The average price of a new Detroit model (\$9,000) was 28 percent higher than two years ago. And financing and fuel costs were up considerably more.



In early 1982, Detroit has plans to slash the number of units on showroom floors, which have again reached record levels with more than 100 days' supply on hand. Several major producers have again announced sales rebates, and also have cut assembly schedules. Production is less than a 5-million annual rate, although sales averaged a 6-million pace in January. All of these factors help explain the severe pressure on the auto-workers' union to reduce labor costs, which are roughly twice as high per car in Detroit than on Japanese production lines.

The housing industry, if anything, exhibits even more severe structural problems. During 1981, most statistical series representing housing activity reached record or near-record lows—far below the 1978 peak of 2 million starts—because of high interest rates and severely curtailed availability of mortgage funds. Most estimates of housing demand, derived from population growth, exceed 2 million new houses per year—which suggests a shortfall of roughly 600,000 units in each of the past three years. Nonetheless, there is no indication that that shortfall will be overcome any time soon. Record interest rates have not only depressed the effective demand for new housing, but also have devastated the nation's thrift institutions and thus dried-up the major source of mortgage financing. In contrast, homebuilding typically has helped lead the economy out of each recession, with housing starts rising as lower interest rates improve the availability and cost of mortgages.

A slight uptick recently in home sales, an apparent bottoming-out of housing starts, the lowest level of home inventories since 1971—and of course the massive shortfall in building during the last several years—indicate grounds for a strong recovery in 1982. Yet real-estate analysts generally believe that mortgage rates must decline several percentage points—to below 14 percent—to generate a significant demand for mortgage credit and housing.

The nation's basic industry—agriculture—also continues to face serious problems in

1982. Record large crops, sluggish demand for farm products, high interest rates, and a stagnant volume of agricultural exports limited the recovery of farm incomes and created cash-flow problems for the industry during 1981. Net farm income last year approached \$23 billion—4 percent higher in real terms than the 1980 total, but largely because of a build-up in crop inventories. Moreover, real income in both years was not much more than half the 1979 peak figure.

Many highly-leveraged farm operators last year experienced a severe cash-flow squeeze, largely because of high interest rates and lower commodity prices. Some of those farmers, however, used the equity accumulated from rapid price appreciation of their land to refinance their operations. But in early 1982 at least, many operators face continued downward pressure on prices and incomes because of large grain stocks and weakening demand for various farm products.

### End of recession?

In a word, structural as well as cyclical problems now beset some major industries, thus providing support to the gloomy Kondratieff thesis. Most observers, however, expect a cyclical upturn later in the year, on the basis of the automatic processes involved in inventory liquidation and rebuilding, as well as the automatic stabilizers working through the Federal budget. In Malabre's apt phrase, recessions (like Wagnerian operas) eventually do come to an end.

The automatic stabilizers this year will be supplemented by outright tax reductions, and more importantly, by the boost to real incomes created by the increasingly successful fight against inflation. The fiscal picture, needless to say, has severely destabilizing implications given the expectation of sharply rising deficits beyond 1982. If progress can be achieved in reducing those deficits, however, the Fed's monetary-policy stance gives promise of a sustainable noninflationary recovery—something we have not been able to achieve in the last several decades.

William Burke

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## BANKING DATA—TWELFTH FEDERAL RESERVE DISTRICT (Dollar amounts in millions)

Selected Assets and Liabilities Large Commercial Banks	Amount Outstanding 1/20/82	Change from 1/13/82	Change from year ago	
			Dollar	Percent
Loans (gross, adjusted) and investments*	156,448	- 152	9,500	6.5
Loans (gross, adjusted) — total#	135,279	- 279	10,834	8.7
Commercial and industrial	41,458	- 231	4,498	12.2
Real estate	55,912	24	5,221	10.3
Loans to individuals	23,712	- 48	81	0.3
Securities loans	2,038	- 40	564	38.3
U.S. Treasury securities*	6,031	194	771	11.3
Other securities*	15,138	- 67	542	3.5
Demand deposits — total#	40,398	-1,613	1,556	3.7
Demand deposits — adjusted	28,042	-1,943	2,129	7.1
Savings deposits — total	30,754	- 280	1,477	5.0
Time deposits — total#	90,052	528	14,432	19.1
Individuals, part. & corp.	81,034	483	15,070	22.8
(Large negotiable CD's)	35,953	218	6,334	21.4
<b>Weekly Averages of Daily Figures</b>	<b>Week ended 1/20/82</b>	<b>Week ended 1/13/82</b>	<b>Comparable year-ago period</b>	
<b>Member Bank Reserve Position</b>				
Excess Reserves (+)/Deficiency (-)	75	68	47	
Borrowings	21	131	312	
Net free reserves (+)/Net borrowed(-)	54	- 63	- 265	

\* Excludes trading account securities.

# Includes items not shown separately.

Editorial comments may be addressed to the editor (William Burke) or to the author . . . Free copies of this and other Federal Reserve publications can be obtained by calling or writing the Public Information Section, Federal Reserve Bank of San Francisco, P.O. Box 7702, San Francisco 94120. Phone (415) 544-2184.